

IN THE CLAIMS

Please amend the claims as follows:

1. (canceled)
2. (currently amended) A ceramic heater ~~having a heating element formed on a surface of a~~ comprising:
an aluminum nitride ceramic substrate; and
a heating element formed on a surface or inside of said aluminum ~~[[a]]~~ nitride ceramic substrate,
wherein said aluminum nitride ceramic substrate comprises 0.05 to 10% by weight of oxygen, and ~~said ceramic substrate~~ has a leakage quantity of 1×10^{-10} to 1×10^{-7} Pa · m³/sec (He) by measurement with a helium leakage detector.
3. (previously presented) The ceramic heater according to claim 2, wherein said leakage quantity is within a range of 1×10^{-10} to 8×10^{-8} Pa · m³/sec (He).
4. (canceled)
5. (currently amended) The ceramic heater according to claim 2, wherein said aluminum nitride ceramic substrate has a thickness of 50 mm or less.
6. (currently amended) The ceramic heater according to claim 2, wherein said aluminum nitride ceramic substrate contains an oxide.
7. (currently amended) The ceramic heater according to claim 2, wherein said aluminum nitride ceramic substrate contains an oxide selected from the group consisting of alkali metal oxide, alkaline earth metal oxide and rare earth oxide.
8. (currently amended) The ceramic heater according to claim 2, wherein said aluminum nitride ceramic substrate is disk-shaped.
9. (currently amended) The ceramic heater according to claim 2, wherein said aluminum nitride ceramic substrate is used at a temperature of 100°C or higher.

10. (currently amended) The ceramic heater according to claim 2, wherein said aluminum nitride ceramic heater is used in the semiconductor industry.